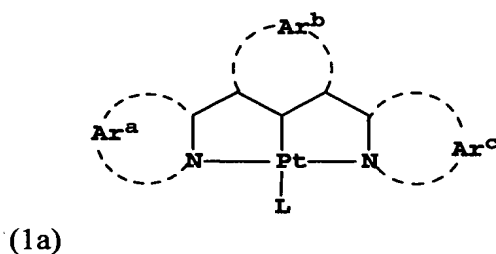


WHAT IS CLAIMED IS:

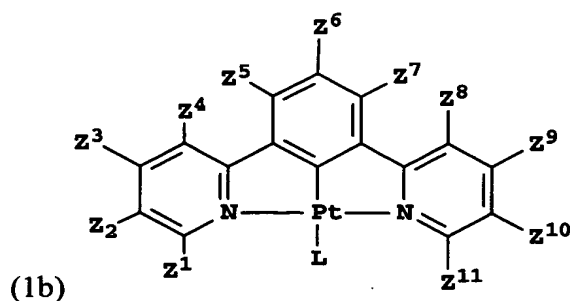
1. An electroluminescent device comprising a light-emitting layer containing a light emitting material that contains an organometallic complex comprising a metal selected from the group consisting of Pt, Pd and Ir, and a tridentate (N[^]C[^]N) ligand, wherein the tridentate (N[^]C[^]N) ligand represents a ligand that coordinates to the metal through a nitrogen donor bond, a carbon-metal bond, and a nitrogen donor bond, in that order, wherein at least one of the nitrogen donors is part of an aromatic ring or an imine group.
2. The device of Claim 1 wherein the metal is Pt.
3. The device of Claim 1 wherein the organometallic complex is part of a compound containing two or more complexes.
4. The device of Claim 1 wherein each of the nitrogen donors is part of an aromatic ring.
5. The device of Claim 1 wherein the organometallic complex can be represented by Formula (1a),



wherein:

Ar^a, Ar^b, and Ar^c independently represent the atoms necessary to form a five or six-membered aromatic ring group; and
L is an anionic ligand.

6. The device of claim 5 wherein Ar^a , Ar^b , and Ar^c independently represent the atoms necessary to form a six-membered aromatic ring group.
7. The device of claim 5 wherein Ar^a and Ar^c independently represent the atoms necessary to form a pyridine ring group.
8. The device of claim 5 wherein Ar^b represents the atoms necessary to form a benzene ring group.
9. The device of claim 5 wherein L represents halogen.
10. The device of claim 5 wherein L represents a substituent that forms a carbon-platinum bond.
11. The device of claim 5 wherein L represents an alkynyl group, an alkenyl group, an aryl group, or an alkyl group.
12. The device of claim 5 wherein L represents RX , wherein X represents a substituent that forms a bond to platinum and wherein X represents N, O, S, or Se, and R represents a substituent.
13. The device of Claim 1 wherein the organometallic complex is represented by Formula (1b),



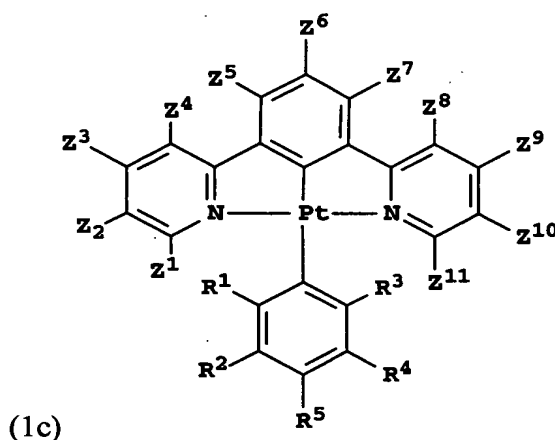
wherein,

$Z^1 - Z^{11}$ represent hydrogen or independently selected substituent groups, provided that adjacent substituent groups can combine to form rings, and provided that Z^4 and Z^5 , and Z^7 and Z^8 can also combine to form rings; and

L represents an anionic ligand.

14. The device of claim 13 wherein L represents halogen, an alkynyl group, an alkenyl group, an aryl group, an alkyl group, or RX, wherein X represents a substituent that forms a bond to platinum and wherein X represents N, O, S, or Se, and R represents an aryl group, an alkyl group, a carbonyl group or a sulfonyl group.

15. The device of Claim 1 wherein the organometallic complex can be represented by Formula (1c),



wherein,

$Z^1 - Z^{11}$ represent independently selected substituent groups, provided that adjacent substituent groups can combine to form rings, and provided that Z^4 and Z^5 , and Z^7 and Z^8 can also combine to form rings; and

$R^1 - R^5$ represent hydrogen or independently selected substituents, provided that adjacent substituent groups can combine to form rings.

16. The device of claim 15 wherein R^1 and R^2 of Formula (1c) combine to form a six-membered ring group.
17. The device of claim 15, wherein R^1 of Formula (1c) is a 1-12 carbon alkyl group.
18. The device of claim 13, wherein R^1 and R^2 , of Formula (1c), combine to form a six-membered ring group.
19. The device of claim 13, wherein R^3 and R^4 also combine to form a six-membered ring group.
20. The device of claim 13, wherein R^1 and R^3 independently represent a 1-12 carbon alkyl group.
21. The device of claim 1 wherein the light-emitting material is disposed in a host material.
22. The device of claim 21 wherein the light emitting material is present in an amount of up to 50 wt% based on the host.
23. The device of claim 21 wherein the light emitting material is present in an amount of up to 15 wt% based on the host.
24. The device of claim 1 capable of emitting white light.
25. The device of claim 24 including a filtering means.
26. The device of claim 1 including a fluorescent white light emitting material.

27. The device of claim 1 wherein the organometallic complex contains a quinolinyl or isoquinolinyl group.

28. A display comprising the OLED device of claim 1.

29. An area lighting device comprising the OLED device of claim 1.